

### REMARKS

Applicant has carefully reviewed the Application in light of the Office Action mailed July 21, 2009. Claims 6-10, 12-17, 19-24, and 26 are pending in this Application. Claim 26 stands rejected under 35 U.S.C. § 112 and Claims 6-10, 12-17, 19-24, and 26 stand rejected under 35 U.S.C. § 103(a). Claims 13 and 26 have been amended. No new matter was presented. Applicant submits the amendments presented complies with M.P.E.P. § 714.12 and thus should be entered. Applicant respectfully requests reconsideration and favorable action in this case.

#### **Rejection under 35 U.S.C. § 112, First Paragraph**

Claim 26 stands rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In particular, the Examiner contends that the element “wherein the electrically conductive layer is not coarsened between the steps of etching and applying an insulating layer” recited in Claim 26 is allegedly not disclosed in the original Specification and is new matter that is not supported. (Final Office Action, Pages 2-3). Applicant disagrees. However, Claim 26 has been amended rendering the rejection moot. Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 112, first paragraph and full allowance of Claim 26.

#### **Rejections under 35 U.S.C. § 103**

In order to establish a *prima facie* case of obviousness, the references cited by the Examiner must disclose all claimed limitations. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). Even if each limitation is disclosed in a combination of references, however, a claim composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. *KSR Int'l. Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007). Rather, the Examiner must identify an apparent reason to combine the known elements in the fashion claimed. *Id.* “Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.* (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

Finally, the reason must be free of the distortion caused by hindsight bias and may not rely on ex post reasoning. *KSR*, 127 S.Ct. at 1742. In addition, evidence that such a combination was uniquely challenging or difficult tends to show that a claim was not obvious. *Leapfrog Enterprises, Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (citing *KSR*, 127 S.Ct. at 1741).

*Independent Claims 6, 13, 20, and 26 are Patentably Distinct Over the Cited References*

Claims 6-8, 13-15, 20-22, and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,407,345 issued to Naohiro Hirose *et al.* (*Hirose*) in view of U.S. Patent No. 5,719,749 issued to John J. Stopperan (*Stopperan*). Applicant respectfully traverses and submits the cited references do not render the pending claims obvious.

Independent Claim 6 recites, in part:

wherein no layers are applied to the circuit board between the steps of etching and applying an insulating lacquer

Independent Claims 13, 20, and 26 each recite a similar element. First, Applicant respectfully submits that the Examiner's lack of specificity in rejecting the claim does not comply with 37 C.F.R. § 1.104 or MPEP § 706.02(j). 37 C.F.R. § 1.104 states:

In rejecting claims for want of novelty or obviousness, the examiner must cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be *clearly explained* and each rejected claim specified. 37 C.F.R. § 1.104(c)(2) (emphasis added).

MPEP § 706.02(j) states that after indicating that a rejection is made under 35 U.S.C. § 103:

[T]he examiner should set forth in the Office action:

- (A) the relevant teachings of the prior art relied upon, *preferably with reference to the relevant column of page number(s) and line number(s) where appropriate*,
- (B) the difference or differences in the claim over the applied reference(s),
- (C) the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter, and

(D) an explanation why one of ordinary skill in the art at the time of the invention was made would have been motivated to make the proposed modification. (Emphasis added).

In making the rejection for the above-recited element, the Examiner merely notes the following: “**Regarding claim 6**, no layers are applied to the circuit board between the steps of etching and applying an insulating lacquer.” (Final Office Action, Page 4). Here, the Examiner fails to provide support for this rejection in *Hirose* or other evidence of record as required by 37 C.F.R. § 1.104 or MPEP § 706.02(j).

Furthermore, in the Office Action mailed October 6, 2008, in response to Applicant’s submission that *Hirose* teaches adding an additional layer (*e.g.*, layers 38 and 42) between the steps of etching and applying an insulating lacquer, the Examiner contends that layers 38 and 42 are not actual layers. (*See* Page 7 of the Response filed on August 6, 2008). In particular, the Examiner contends that layer 38 “is merely layer 34 having a roughened surface...and layer 42 can actually be nothing more than a roughened surface of conductor layer 34.” (Page 5, Office Action mailed 10/6/2008). Applicant disagrees. For example, *Hirose* clearly discloses that “a coarsened layer (an irregular layer) 42 constructed by a Cu-Ni-P alloy having 2.5  $\mu\text{m}$  in thickness *is formed on the upper faces of the through hole land 35a and the conductor layer 34.*” (Column 15, Lines 45-48). Thus, at least layer 42 is an actual layer formed on layer 34 and not a roughened layer of conductor layer 34 as the Examiner contends. Therefore, *Hirose* discloses forming layers (*e.g.*, layer 42) are applied to the circuit board between the steps of etching and applying an insulating lacquer.

*Stopperan* also fails to teach or suggest the above-recited element of Independent Claim 6, which is similarly recited in each of Independent Claims 13, 20, and 26.

For at least these reasons, Applicant submits that Independent Claims 6, 13, 20, and 26 are patentably distinct over *Hirose* and/or *Stopperan*. Given that Claims 7 and 8 depend from Claim 6, Claims 14 and 15 depend from Claim 13, and Claims 21 and 22 depend from Claim 20, Applicant submits that Claims 7, 8, 14, 15, 21, and 22 are also allowable. Applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) and full allowance of Claims 6-8, 13-15, 20-22, and 26.

Claims 9, 10, 12, 16, 17, 19, 23, and 24 are Patentably Distinct

Claims 9, 10, 12, 16, 17, 19, 23, and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Hirose* in view of Applicant's Admitted Prior Art (*AAPA*). Given that Claims 9, 10, and 12 depend from Claim 6, Claims 16 and 17 depend from Claim 13, and Claims 23 and 24 depend from Claim 20, each of Claims 6, 13, and 20 shown allowable above, Applicant submits that Claims 9, 10, 12, 16, 17, 19, 23, and 24 are also allowable. Applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) and full allowance of Claims 9, 10, 12, 16, 17, 19, 23, and 24.

**Information Disclosure Statement**

Applicant files concurrently with this response an Information Disclosure Statement and PTO Form 1449 ("IDS") listing a German Office Action from a related foreign counterpart application (copy attached) and U.S. Patent No. 6,015,520, which was cited in the foreign office action. Applicant authorizes the Commissioner to charge the \$180.00 fee for the IDS and any additional fees necessary or credit any overpayment to Deposit Account No. 50-2148 of Baker Botts L.L.P.

**No Waiver**

All of Applicant's arguments and amendments are without prejudice or disclaimer. Additionally, Applicant has merely discussed example distinctions from the references relied upon. Other distinctions may exist, and Applicant reserves the right to discuss these additional distinctions in a later Response or on Appeal, if appropriate. By not responding to additional statements made by the Examiner, Applicant does not acquiesce to the Examiner's additional statements. The example distinctions discussed by Applicant are sufficient to overcome the rejections asserted in the present Office Action.

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PATENT APPLICATION  
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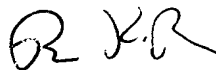
### CONCLUSION

Applicant has now made an earnest effort to place this case in condition for allowance in light of the remarks set forth above. Applicant respectfully requests reconsideration of pending Claims 6-26.

Applicant encloses an Information Disclosure Statement (IDS) and authorizes the Commissioner to charge \$180.00 for the IDS to Deposit Account No. 50-2148 of Baker Botts L.L.P. Applicant believes there are no additional fees due at this time, however, the Commissioner is hereby authorized to charge any fees necessary or credit any overpayment to Deposit Account No. 50-2148 of Baker Botts L.L.P.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicant's attorney at 512.322.2684.

Respectfully submitted,  
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Date: September 21, 2009

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